

## **REMARKS**

Prior to this Reply, Claims 1-24 were pending. Through this Reply, Claim 19 has been amended to correct an obvious typographical error. No claims have been added or cancelled. Accordingly, Claims 1-24 are now at issue in the present case.

### **I. Rejections of Claims**

The Examiner rejected Claims 1, 5-14 and 16-18 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,856,986 to Sobey (hereinafter “Sobey”). Furthermore, the Examiner rejected Claims 2-4, 15 and 19-24 under 35 U.S.C. § 103(a) as being unpatentable over Sobey in view of U.S. Patent No. 6,446,234 to Cox et al. Applicants respectfully traverse the Examiner’s rejections.

With respect to Claim 1, Applicants note that such claim requires the step of “identifying at least a first dominant error for a communication channel.” Applicants believe that Sobey fails to disclose the above-quoted limitation.

The Examiner stated that Sobey teaches identifying a dominant error in column 9, lines 6-7. The Examiner quoted such lines as reading “Table 1 approximates dominant error.” In fact, the language reads “Table 1 approximates dominant error probability...” (emphasis added). Nowhere in Sobey is a dominant error identified. If the Examiner believes otherwise, he is requested to specifically point out the dominant error that is identified by Sobey.

On page 14, lines 2-10 of the present application, for example, Applicants give examples of first and second dominant errors. It should be noted that the present application is not limited to the example dominant errors on page 14.

In contrast, Sobey does not provide any examples of dominant errors. Instead, Sobey approximates dominant error probabilities. (Thus, it appears that the portion of Sobey cited by the Examiner does not even provide dominant error probabilities; rather, such probabilities are approximated.) The language “dominant error probabilities” is not defined in Sobey. Furthermore, the language “dominant error probabilities” only appears once in Sobey.

For at least the above reasons, Applicants submit that Claim 1 is patentably distinguishable from Sobey. For at least the same reasons, Applicants submit that Claims 2-11, which depend directly or indirectly from Claim 1, are likewise patentably distinguishable from Sobey.

Claim 1 also requires the step of “determining a range of user values corresponding to a maximum tolerable user value error.” Applicants believe that Sobey fails to teach the quoted-limitation.

The Examiner stated that Sobey teaches determining a range of user values corresponding to a maximum error in column 9, lines 1-3. The Examiner quoted such lines as reading “Table 1 lists...error for each type of detector over a range of threshold settings.” The Examiner then inexplicably argued that “the threshold are a range of user values for a maximum error” (emphasis added) (Office Action at page 2). Applicants disagree.

Applicants are at a loss as to how the threshold can be a range of user values. Furthermore, Col. 9, lines 1-4, reads: “Table 1 lists the approximate probabilities of error for each type of detector over a range of threshold settings. When comparing the probability of error over  $T=2, 3$  and 4 blocks in error, these may be approximately  $PER^2$ .” Accordingly, it appears that the threshold,  $T$ , sets a maximum number of bits or blocks in error (see Table 1). Therefore,

the threshold cannot be a range of user values corresponding to a maximum tolerable user value error, as claimed in Claim 1.

For at least the above reasons, Applicants submit that Claim 1 is patentably distinguishable from Sobey. For at least the same reasons, Applicants submit that Claims 2-11, which depend directly or indirectly from Claim 1, are likewise patentably distinguishable from Sobey.

Claim 1 further requires the steps of “assigning a first user value to a first code word; and assigning a second user value to a second code word, wherein said second user value is within said range of user values from said first user value, wherein a word encoded as said first code word is read as said second code word if said at least a first dominant error occurs.” Applicants believe that Sobey fails to disclose the above-quoted limitations.

The Examiner stated that Sobey teaches assigning values to a first and second codeword and reading the first codeword as the second codeword based on error detection in Figure 17, citing reference numerals 403, 412, 422. As set forth in Col. 13, lines 18 to Col. 14, line 2, Figure 17 summarizes possible screens that can be used to determine appropriate sync field patterns.

Applicants fail to understand how Figure 17 discloses “a word encoded as said first code word is read as said second code word if said at least a first dominant error occurs,” as required by Claim 1. Among other things, as mentioned above, Sobey fails to disclose any type of dominant error. Therefore, it is impossible to determine, in Sobey, if said at least first dominant error has occurred. Furthermore, the Examiner has offered no explanation of which word encoded as said first code would be read as said second code word.

For at least the above reasons, Applicants submit that Claim 1 is patentably distinguishable from Sobey. For at least the same reasons, Applicants submit that Claims 2-11, which depend directly or indirectly from Claim 1, are likewise patentably distinguishable from Sobey.

Similar arguments apply to independent Claims 12 and 19. Accordingly, Applicants submit that Claims 12 and 19, along with Claims 13-18 and 20-24 (which respectively depend directly or indirectly from Claims 12 and 19), are also patentably distinguishable from Sobey.

It is believed the above comments establish patentability of the claims. Applicants do not necessarily accede to the assertions and statements made by the Examiner in the Office Action, whether or not expressly addressed herein.

## **II. Additional Claim Fees**

In determining whether additional claim fees are due, reference is made to the Fee Calculation Table (below).

**Fee Calculation Table**

	Claims Remaining After Amendment		Highest Number Previously Paid For	Present Extra	Rate	Additional Fee
Total (37 CFR 1.16(c))	24	Minus	24	= 0	x \$18 =	\$ 0.00
Independent (37 CFR 1.16(b))	3	Minus	3	= 0	x \$86 =	\$ 0.00

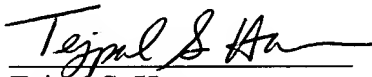
As set forth in the Fee Calculation Table (above), Applicants previously paid claim fees for twenty-four (24) total claims and for three (3) independent claims. Accordingly, Applicants believe that no additional claims fees are due. Nevertheless, the Commissioner is hereby authorized to charge Deposit Account No. 50-2198 for any fee deficiencies associated with filing this paper.

### III. Conclusion

Applicants believe that the application appears to be in form for allowance. Accordingly, reconsideration and allowance thereof is respectfully requested.

The Examiner is invited to contact the undersigned at the below-listed telephone number regarding any matters relating to the present application.

Respectfully submitted,



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